

|    | Type | L # | Hits        | Search Text  | DBs                                | Time Stamp        | Comments | Error Definition | Errors |
|----|------|-----|-------------|--|------------------------------------|-------------------|----------|------------------|--------|
| 1  | BRS  | L1  | 14058       | staphylococcus adj aureus  | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:23 |          | 0                | 0      |
| 2  | BRS  | L3  | 66          | hop adj acid   | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:27 |          | 0                | 0      |
| 3  | BRS  | L4  | 25          | (hexahydro adj beta adj acid) or (hexahydro adj beta adj salt) or (tetrahydroiso adj alpha adj acid) or (tetrahydroiso adj alpha adj salt) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:30 |          | 0                | 0      |
| 4  | BRS  | L5  | 1           | (3 or 4) same 1  | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:35 |          | 0                | 0      |
| 5  | BRS  | L6  | 61727       | tampoon or (wound adj dressing) or suppository or (disposable adj diaper) or (sanitary adj napkin)   | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:36 |          | 0                | 0      |
| 6  | BRS  | L7  | 32538<br>26 | fiber or film or foam or wood or pulp or (peat adj moss) or (absorbent adj material) or (superabsorbent adj polymer)                       | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:40 |          | 0                | 0      |
| 7  | BRS  | L8  | 0           | 6 same 7 same (3 or 4)   | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:41 |          | 0                | 0      |
| 8  | BRS  | L9  | 8           | 7 same (3 or 4)  | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:42 |          | 0                | 0      |
| 9  | BRS  | L10 | 0           | 9 same 1   | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:42 |          | 0                | 0      |
| 10 | BRS  | L11 | 7021        | lactobacillus  | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/1 7 19:43 |          | 0                | 0      |

|    | Type | L # | Hits | Search Text             | DBs                                | Time Stamp       | Comments | Error Definition | Error |
|----|------|-----|------|-------------------------|------------------------------------|------------------|----------|------------------|-------|
| 11 | BRS  | L12 | 1    | 1 same 11 same (3 or 4) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/06/17 19:43 |          |                  | 0     |

=> d his

(FILE 'HOME' ENTERED AT 19:46:16 ON 17 JUN 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
ENTERED AT

19:46:47 ON 17 JUN 2002

L1 201167 S STAPHYLOCOCCUS AUREUS  
L2 194 S HOP ACID  
L3 33 S (HEXAHYDRO BETA ACID) OR (HEXAHYDRO BETA SALT) OR  
(TETRAHYDRO  
L4 1 S L1 (P) (L2 OR L3)  
L5 29633 S TAMPON OR (WOUND DRESSING) OR SUPPOSITORY OR  
(DISPOSABLE DIAP  
L6 2958119 S FIBER OR FILM OR FOAM OR WOOD OR PULP OR (PEAT  
MOSS) OR (ABSO  
L7 0 S L5 (P) L6 (P) (L3 OR L4)  
L8 1 S L6 (P) (L3 OR L4)  
L9 0 S L8 NOT L4  
L10 65816 S LACTOBACILLUS  
L11 1 S L1 (P) L10 (P) (L3 OR L4)  
L12 0 S L11 NOT L4  
L13 1 S L10 (P) (L3 OR L4)  
L14 0 S L5 (P) L6 (P) (L2 OR L3)  
L15 20 S L6 (P) (L2 OR L3)  
L16 14 DUPLICATE REMOVE L15 (6 DUPLICATES REMOVED)  
L17 1 S L16 (P) L1  
L18 0 S L17 NOT L4  
L19 1 S L1 (P) L10 (P) (L2 OR L3)  
L20 0 S L19 NOT L4  
L21 1 S L10 (P) (L2 OR L3)  
L22 0 S L21 NOT L4

=> log y

FILE 'HOME' ENTERED AT 19:46:16 ON 17 JUN 2002

=> file medline caplus biosis embase scisearch agricola

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'MEDLINE' ENTERED AT 19:46:47 ON 17 JUN 2002

FILE 'CAPLUS' ENTERED AT 19:46:47 ON 17 JUN 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'BIOSIS' ENTERED AT 19:46:47 ON 17 JUN 2002

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FILE 'EMBASE' ENTERED AT 19:46:47 ON 17 JUN 2002

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FILE 'SCISEARCH' ENTERED AT 19:46:47 ON 17 JUN 2002

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FILE 'AGRICOLA' ENTERED AT 19:46:47 ON 17 JUN 2002

=> s staphylococcus aureus

L1 201167 STAPHYLOCOCCUS AUREUS

=> s hop acid

L2 194 HOP ACID

=> s (hexahydro beta acid) or (hexahydro beta salt) or (tetrahydroiso alpha acid) or (tetrahydrois  
4 FILES SEARCHED...

L3 33 (HEXAHYDRO BETA ACID) OR (HEXAHYDRO BETA SALT) OR (TETRAHYDROISO  
ALPHA ACID) OR (TETRAHYDROISO ALPHA SALT)

=> s l1 (p) (l2 or l3)

L4 1 L1 (P) (L2 OR L3)

=> d l4 1 ibib abs

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:283780 CAPLUS

DOCUMENT NUMBER: 134:300854

TITLE: \*\*\*Hop\*\*\* \*\*\*acids\*\*\* used for inhibition of  
\*\*\*Staphylococcus\*\*\* \*\*\*aureus\*\*\*

INVENTOR(S): Barney, Michael C.; Navarro, Alfonso L.; Ryder, David  
S.

PATENT ASSIGNEE(S): Miller Brewing Company, USA

SOURCE: PCT Int. Appl., 14 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2001026647 | A1   | 20010419 | WO 2000-US27927 | 20001010 |

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  
CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,  
MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,  
SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-158810P P 19991012

US 2000-664519 A 20000918

AB The present invention provides methods, products, and compns. for

selectively inhibiting the growth of *S. aureus* without preventing the growth of *Lactobacillus* species. Specifically, the present invention discloses the use of tetrahydroiso- $\alpha$ -acids or hexahydro- $\beta$ -acids at a concn. effective for the inhibition of the growth of *S. aureus* without preventing the growth of *Lactobacillus*. The inhibition of *S. aureus* thus provides useful methods, compns. and products such as feminine hygiene products for treating the diseases assocd. with *S. aureus* infections and infestations, i.e., toxic shock syndrome, without disrupting the normal bacterial flora in the area of its application. The results of MIC assay of tetrahydroiso- $\alpha$ -acids and hexahydro- $\beta$ -acids on *S. aureus* and *Lactobacillus* show that *S. aureus* was much more sensitive to tetrahydroiso- $\alpha$ -acids and hexahydro- $\beta$ -acids than the *Lactobacillus* species tested. *Lactobacillus* exhibited strong growth in concns. of tetrahydroiso- $\alpha$ -acids and hexahydro- $\beta$ -acids as high as 12.5 ppm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s tampon or (wound dressing) or (suppository or (disposable diaper) or (sanitary napkin)  
UNMATCHED LEFT PARENTHESIS 'OR (SUPPOSITOR'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s tampon or (wound dressing) or suppository or (disposable diaper) or (sanitary napkin)  
L5 29633 TAMPON OR (WOUND DRESSING) OR SUPPOSITORY OR (DISPOSABLE DIAPER)  
OR (SANITARY NAPKIN)

=> s (fiber or film or foam or wood or pulp or (peat moss) or (absorbent material) or (superabsorb  
UNMATCHED LEFT PARENTHESIS '(FIBER'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s fiber or film or foam or wood or pulp or (peat moss) or (absorbent material) or (superabsorbe  
L6 2958119 FIBER OR FILM OR FOAM OR WOOD OR PULP OR (PEAT MOSS) OR (ABSORBE  
NT MATERIAL) OR (SUPERABSORBENT POLYMER)

=> d his

(FILE 'HOME' ENTERED AT 19:46:16 ON 17 JUN 2002)

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L3 33 S (HEXAHYDRO BETA ACID) OR (HEXAHYDRO BETA SALT) OR (TETRAHYDRO  
L4 1 S L1 (P) (L2 OR L3)  
L5 29633 S TAMPON OR (WOUND DRESSING) OR SUPPOSITORY OR (DISPOSABLE DIAP  
L6 2958119 S FIBER OR FILM OR FOAM OR WOOD OR PULP OR (PEAT MOSS) OR (ABSO

=> s 15 (p) 16 (p) (13 or 14)  
L7 0 L5 (P) L6 (P) (L3 OR L4)

=> s 16 (p) (13 or 14)  
L8 1 L6 (P) (L3 OR L4)

=> s 18 not 14  
L9 0 L8 NOT L4

=> s lactobacillus  
L10 65816 LACTOBACILLUS

=> s 11 (p) 110 (p) (13 or 14)  
L11 1 L1 (P) L10 (P) (L3 OR L4)

=> s 111 not 14  
L12 0 L11 NOT L4

=> s 110 (p) (13 or 14)  
L13 1 L10 (P) (L3 OR L4)

=> d his

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L8 1 S L6 (P) (L3 OR L4)  
L9 0 S L8 NOT L4  
L10 65816 S LACTOBACILLUS  
L11 1 S L1 (P) L10 (P) (L3 OR L4)  
L12 0 S L11 NOT L4  
L13 1 S L10 (P) (L3 OR L4)

=> s 15 (p) 16 (p) (12 or 13)

L14 0 L5 (P) L6 (P) (L2 OR L3)

=> s 16 (p) (12 or 13)

L15 20 L6 (P) (L2 OR L3)

=> duplicate remove l15

DUPLICATE PREFERENCE IS 'CAPLUS, BIOSIS, SCISEARCH'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L15

L16 14 DUPLICATE REMOVE L15 (6 DUPLICATES REMOVED)

=> s l16 (p) l1

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH

FIELD CODE - 'AND' OPERATOR ASSUMED 'L107 (P) L1'

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH

FIELD CODE - 'AND' OPERATOR ASSUMED 'L113 (P) L4'

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH

FIELD CODE - 'AND' OPERATOR ASSUMED 'L117 (P) L6'

L17 1 L16 (P) L1

=> s l17 not l4

L18 0 L17 NOT L4

=> d his

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L5 29633 S TAMPON OR (WOUND DRESSING) OR SUPPOSITORY OR (DISPOSABLE DIAP  
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L8 1 S L6 (P) (L3 OR L4)  
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L13 1 S L10 (P) (L3 OR L4)  
L14 0 S L5 (P) L6 (P) (L2 OR L3)  
L15 20 S L6 (P) (L2 OR L3)  
L16 14 DUPLICATE REMOVE L15 (6 DUPLICATES REMOVED)  
L17 1 S L16 (P) L1  
L18 0 S L17 NOT L4

=> s l1 (p) l10 (p) (12 or 13)

L19 1 L1 (P) L10 (P) (L2 OR L3)

=> s l19 not l4

L20 0 L19 NOT L4

=> s l10 (p) (l2 or l3)  
 L21 1 L10 (P) (L2 OR L3)

=> s l21 not l4  
 L22 0 L21 NOT L4

=> d his

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 L8 1 S L6 (P) (L3 OR L4)  
 L9 0 S L8 NOT L4  
 L10 65816 S LACTOBACILLUS  
 L11 1 S L1 (P) L10 (P) (L3 OR L4)  
 L12 0 S L11 NOT L4  
 L13 1 S L10 (P) (L3 OR L4)  
 L14 0 S L5 (P) L6 (P) (L2 OR L3)  
 L15 20 S L6 (P) (L2 OR L3)  
 L16 14 DUPLICATE REMOVE L15 (6 DUPLICATES REMOVED)  
 L17 1 S L16 (P) L1  
 L18 0 S L17 NOT L4  
 L19 1 S L1 (P) L10 (P) (L2 OR L3)  
 L20 0 S L19 NOT L4  
 L21 1 S L10 (P) (L2 OR L3)  
 L22 0 S L21 NOT L4

|  |            |         |
|--|------------|---------|
| => log y                                   |            |         |
| COST IN U.S. DOLLARS                       | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| FULL ESTIMATED COST                        | 77.21      | 77.42   |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| CA SUBSCRIBER PRICE                        | -0.62      | -0.62   |

STN INTERNATIONAL LOGOFF AT 19:59:51 ON 17 JUN 2002